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Agricultural Education

Farm Home of an Illustrious Farmer
The Farm Home of Joseph Wing
(See editorial page)

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—C. H. Judd

EDITORIAL COMMENT

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THE FARM HOME OF JOSEPH WING, ILLUSTRIOUS FARMER

THE cover-page picture is that of the farm home of Joseph Wing. In a letter to the editor Mrs. Wing writes, "Our house was built in 1904 in a group of oak trees, and Mr. Wing planted hedges and shrubbery and irises, and it is a home-like, attractive country place."

The home place, known as Woodland Farm, became quite a different place from what it was when Joseph Wing took charge. Then the fifty years of cropping had run down the farm. Mr. Wing made of it one of the most fertile farms in the country. Its original acreage of 196 was doubled.

The farm home shown in the picture took the place of a cottage, built largely with his own hands and in which Joseph Wing and his wife set up housekeeping. Even today, passing motorists slow up to look with admiration at a farm home with such a combination of utility and beauty.

Joe Wing declined to live in the city. He said that the city stifled him. He enjoyed the open country. His heart was in his farm home, in the trees he had planted, the sheep he had bred, and in the waving fields of corn, and in the green of the alfalfa. He believed in farming as a mode of life as well as a method of making a living.

Joe Wing is dead, but his spirit lives on. His last resting place is in a simple country graveyard, marked by only a headstone and some blue irises, his favorite flower. His memory is graven in the minds of men as well as etched in the emerald green fields of alfalfa of a thousand valleys and hills.

HEADLONG CHANGE AND THE TEACHER OF VOCATIONAL AGRICULTURE

VALENTINE in *The Art of the Teacher* says:

> NOTHING in history can compare with the rapid and profound innovations that have marked the life of the past thirty years alone. Those of us who have lived through that time have beheld such changes in the material, social, and intellectual structure of our world that we have actually been compelled to make greater adjustments, probably, than one living through a thousand years of any previous history would have had to make.

Living a thousand years in thirty, living a hundred years in three. Verily, we in the present generation must think as we run. "He who pauses in the flight loses pace with the world and becomes as a bewildered alien."

A book on human physiology I used to study said that the human body is remade every seven years. That seemed to me a rapid change. Agricultural education is being made over in less than seven years. A teacher of vocational agriculture graduating in 1926 is today an alien unless he has made a vigorous effort to keep up with the changes in agricultural education.

It would be so comforting to many teachers if agricultural education would but stand still. This boon is impossible. It would make vocational agriculture a fixed, changeless, static, dead thing instead of the changing, evolving, dynamic, living thing that it is. We must press adventurously forward. We must move along with the stream of evolving society. We do not wish for society to stand still; we must not yearn for the restful finalities of yesterday. Education today is vigorous because society is passing thru tremendous changes. We would not have it otherwise.

Are you an alien? "Teachers of agriculture who possessed the qualities of merit that were acceptable a decade or so ago when the work was new, when the problems were simple, may be wholly incompetent to meet the exacting demands of the modern, complex, and bewildering turmoil incident to the birth of a new rural generation. During the ox-cart days in agricultural education, poorly prepared teachers with meager and shallow programs were frequently considered satisfactory. But today the modern complex pattern of social and economic rural life demand highly trained and technically trained teachers. Teachers who are not highly competent must give way to those who can measure up to the new requirements."

Dr. Field in an article on "Professional Anemia" in the May issue of *The Visitor*, from which article the above quotation is taken, makes this statement: "Teachers whose professional and technical collegiate preparation antedates the modern period by even a few years are guided by obsolete and antiquated ideals unless they have remained close students of the recent trends in social and economic affairs. Many of these teachers of agriculture from the 'old school' are rapidly approaching the western horizon of their teaching career. It is with compassion in our hearts that we view their fading professional sun prematurely sinking into the land of lost opportunities, of stolid conservatism—a land unknown to the impetuous, virile youth of the oncoming generation."

Are you making a vigorous effort not only to adapt yourself to the change but to help create the change? Or do you belong to the group of the weary who realize that they are being left behind but who wish that things would stand still? Or, worse, do you belong to the group upon whom it has never dawned that they are aliens in a world of change?—C. H.

VOLUME VI

THIS issue of the magazine is the first issue of Volume VI. Five volumes have served as a medium of expression for those who have wished to express themselves thru the columns of this publication. These volumes, we hope, have carried suggestions and inspiration to the thousands of readers.

The magazine has withstood the depression, just as agricultural education has withstood the depression. Teachers of agriculture are a loyal group. Salaries nearly everywhere dropped to a very low point, but the teachers have kept up their subscriptions to the magazine and have continued to contribute articles. This is the spirit that makes the magazine possible.

Much remains to be accomplished in promoting and developing agricultural education and in promoting and developing the magazine. Part of the responsibility is yours.

A COG IN A MACHINE

THE time has passed, if there ever really were such a time, when a teacher who has mastered certain conventional skills and knowledges can be considered a successful secondary teacher because he succeeds in passing the same skill on to his pupils. Unless he conceives his task as recreating and modifying his subject matter and methodology in accordance with his pupils' interests and needs, and with the rapidly changing social conditions and problems, the teacher is a mere cog in a machine of which he has no direct control. —Philip W. L. Cox, 1925

Professional

Charles Hubbard Judd

H. M. HAMLIN, Iowa State College

THE life and work of Charles Hubbard Judd are so well known and accounts regarding them are so easily available to all that it is unwise to report here in general about them. Instead, I shall summarize his views and activities which have related particularly to agricultural education. These may be treated under four heads:

H. M. Hamlin

1. His fight for an enriched and diversified curriculum
2. His advocacy of an undivided educational system
3. His contributions to the science of education
4. His emphasis on generalization

No one was more forceful or influential than he in leading the schools away from a narrow, required curriculum to a broad curriculum with opportunities for electives such as agriculture. No single person has had more to do with bringing about the close administrative coordination of agricultural education with general education in most of the states; no one has fought more vigorously for similar coordination at Washington. It would be generally conceded that he has been the leading proponent in the United States of the use of the scientific method in education, which is increasingly influencing our procedures in agricultural education. He has stood, sometimes nearly alone, for a conception of the human mind and its manner of functioning which is fundamental in all of our thinking about the problems of agricultural education, whether they be problems of administration or curriculum or methods of teaching.

I shall attempt to review briefly what he has stood for in these respects and particularly to point out the implications of his views for agricultural education.

His Fight for an Enriched Curriculum

"When one thinks of the wall of Latin, algebra, and ancient history which most of us climbed half a generation ago," Dr. Judd once said,[1] "he is certainly glad of an opportunity in mature life to knock a few stories from the foundation of that moss-grown barrier." Time and again he has pointed to the social and industrial forces making necessary the revision of the curriculum. Here is one of his pungent statements on this point:[2]

> Individual differences are so marked in the seventh grade that if they are not provided for inside the schools, pupils will leave the schools. Indeed pupils are today leaving the schools which hold to the old formal curriculum, just because they find in industry and in other spheres concessions to their individual needs. Whether we like it or not, education will follow diversified lines from the sixth grade on. How much more rational it will be to adopt a general form of school organization which recognizes individual differences and utilizes them?

We welcomed the introduction of the agricultural and industrial subjects into the schools because they helped in providing for these individual differences; because they were broadening in their influence on the students; and because they related the school more closely to life. Speaking before the convention of the National Education Association in 1916, he said:[3]

> Some high schools have developed into appendages of colleges and have been satisfied to offer merely a narrowly preparatory course. But the typical, the vigorous example of the American high school has been characterized by the broad purpose of introducing the student to life. The great fields of human knowledge are to be canvassed by the student in series of courses which carry him thru history, literature, science, and mathematics. In our modern high schools there is added to this list of academic subjects an intensive study of the vernacular and a whole series of practical and industrial arts which are to widen the student's horizon.

Charles Hubbard Judd

Holding these views, he became one of the hardest and most effective fighters for the junior high school with its broadened program for early adolescence, in a day when it had few exponents.

The article beginning on this page, by Dr. Hamlin, is the eighth article in the ten-article series dealing with contributions of leading American educators. One article has appeared each month since December. The two remaining articles will appear in the August and September issues. Then the ten articles will be brought together in booklet form.—*Editor.*

One of Dr. Judd's strongest characteristics has been his consistency. We find him today reiterating his stand of half a generation ago. In a letter to the writer dated March 28, 1933, he says:

> I think of a six-year elementary school as supplying the fundamentals of school training. I hope that in the future the secondary school may begin at about the twelfth year of a child's age. From that age on, it seems to me, that there should be, first, a common core of subjects which will give the pupil an understanding of society and of the major acquisitions of science and the major contributions to civilization of literature. This fundamental core or general training should occupy, it seems to me, approximately one-third of a pupil's time. Two-thirds of his high-school course could properly be arranged with a view to preparing him for his later career. If such a division of his time as I have suggested is made, there would be ample opportunity for specialization in agriculture or in one or another of the literary pursuits.

His Advocacy of an Undivided Educational System

Having taken his graduate training in Germany and having visited Europe frequently thruout his life, Dr. Judd became keenly aware of the differences in education and in social philosophy between our country and other countries. He has always been a steadfast advocate of our own democratic philosophy; has insisted on its application to our schools; and has resisted all attempts to substitute plans of school administration which seemed to him to defy our American principles. He has seen in our public school system an opportunity to develop solidarity among all social groups, and to provide the lowliest with the opportunity to go as far as their abilities and desires will carry them.

Applications of the German social philosophy to our situation seemed to him to be especially menacing. He contended against maintaining in America an elementary school copied after the German *Volksschule*, an institution designed to give a very limited education to the masses to whom the advantages of the higher schools were largely denied. He urged for many years and aided materially in securing a unified

public school program, including without sharp breaks at any point the elementary school, the junior high school, and the senior high school.

He saw the same issue again involved when, in the early years of the present century, it was urged that America set up a separate system of vocational education, patterned after the German plan but going even farther than the Germans had gone in setting vocational education apart from the existing public schools. He feared that such an arrangement would operate in this country as in Germany to give the masses of people only a limited education and that along vocational lines only. Speaking in 1914, he said:[4]

> We could not borrow their schools and their educational standards without taking on their attitude toward the more general social problems. The German school is the expression of a national spirit. Let him who is impatient with our schools look beneath the surface and see how our schools are in reality developing a new and broader social standard, unique in the world, and intelligible only to those who appreciate the truly democratic spirit.

Again, speaking along similar lines, he stated his belief that "We may as well give up the boast of democracy if we are to have industrial education for the masses and a liberal education for the favored few."[5]

His opposition to a dual system during the period of the introduction of vocational education into the public schools of this country has sometimes been interpreted as opposition to vocational education as such. Nothing could be farther from the truth. He constantly advocated the extension of the privileges of vocational education. Here is a sample of his utterances: "The liberal arts were once for the free man; the industrial arts were for his slave. In the new order there must be a new enthusiasm alike for letters and for skill."[6]

He was not pleased with the administrative arrangement set up under the Smith-Hughes Act because it provided too nearly a separate system of vocational education, at the federal level. Soon after the passage of the Act (1918) he stated his position as follows:[7]

> I would that I might say some word to influence the policy of the coming days in the direction of a new and comprehensive educational pattern—one that is not colored by industry alone and one that is not partial to the liberal arts. When I think of the possibility that the Federal Board for Vocational Education will have its way, I shudder for the country. When, on the other hand, I contemplate the possibility of an educational system dominated by minds of the type produced by over-absorption in the liberal arts, I feel like preparing for voluntary exile.

Again in 1920, he assured us that his opposition to the federal setup for vocational education did not imply opposition to vocational education itself:[8]

> Please note that I do not speak in favor of the present Smith-Hughes law. I believe it is unworkable and ought to be revised. I do not speak either in favor of abandoning the federal interest in vocational and agricultural education.

He urged also in 1920 that, instead of the administrative arrangement set up in 1917, there should be a centralized department or bureau, combining the Bureau of Education, the Federal Board for Vocational Education, "those divisions of the Department of Agriculture which deal directly with the public schools," and other governmental agencies related to the schools.[9] He believed that, if the Federal Board for Vocational Education were omitted in the reorganization, America would have "launched upon a new policy of public education."[10] Speaking to this point, he said:

> Up to this time we have had one, undivided school . . . . . If the nation is going to launch a divided control . . . . I for one shall do what I can to draw attention to the fact that the policy is a violation of American spirit and experience . . . . (and) to insure a readjustment such that vocational education and general education shall have the same kind of treatment so far as the nation is concerned.[11]

This general point of view was maintained in his contribution to the "Wilbur Committee" report in 1930.

Dr. Judd has always stood for coordination of the efforts of general and vocational educators. Writing again on this subject in 1933, he has said:[12]

> I think there ought to be perfectly clear recognition on both sides that the specialties in which the two parties are interested can be brought together in a single, well-organized scheme of education. The English report on education for adolescents is, in my judgment, a model which we ought somehow to follow in this country. If we could bring together the leading educators of the country and produce a document as comprehensive and rational as that produced in England, I think we should have gone a long way toward solving our problem of curriculum construction in the secondary school.

His Contributions to the Science of Education

Dr. Judd has probably been the most notable advocate of and contributor to the science of education which this country has yet produced. A democratic school system guided by science has been the goal of his endeavors. He has been impatient with tradition and opinion as substitutes for science. It is not surprising then that he objected vigorously to some of the early attempts of the Federal Board for Vocational Education to impose purely arbitrary standards upon the schools cooperating in its program.[13] Speaking in 1920, he said:

> We have seen an evil outcome of our federal experiment in vocational education. The present attitude on the part of the majority of school officers toward the Smith-Hughes Board . . . . is due to the fact that the Vocational Board has been swash-buckling up and down the land giving all sorts of irrational orders.

It has been his view that federal agencies concerned with education should engage primarily in research. He has not held with those who would have the federal government relinquish all supervision over schools receiving federal funds. He has insisted that there must be federal supervision or funds will be wasted, but he has demanded that this supervision be scientific and not arbitrary.[14]

He has been frankly critical of the manner in which vocational education has been introduced into the United States, holding that there has not been sufficient research regarding it. Too often, he thinks, the emphasis has been upon expanding rapidly a preconceived program instead of determining carefully and scientifically what kind of a program is needed and how to conduct it.

His Emphasis on Generalization

Perhaps the hardest battle Dr. Judd has fought and the most decisive victory he has won has been with the advocates of narrowly specialized training. He never accepted the allegedly scientific findings which were supposed to have mutilated the doctrine of formal discipline and the theory of transfer of training. He stated twenty years ago and he states today that the psychology which asserts that mental life is made up of a series of special reactions to particular situations is absolutely false. He believes now as then that generalized experience is the highest result of educational training. Today there is nearly universal acceptance of his point of view in this respect.

Had agricultural educators taken his teachings more seriously, they would have been spared many of the excursions into blind alleys on which they have gone. Even now a considerable segment of the profession is missing a large part of their opportunities because they have not got into their thinking the equivalent of Chapter 17 in his *Psychology of High School Subjects* (1915) [15].

His Specific Suggestions for the Improvement of Public School Agriculture

While Dr. Judd has made many contributions of value to agricultural education, he has not dealt directly with it to any considerable extent and does not presume to speak with authority regarding it. The writer believes however that his general impression of our work over the long period of years he has been concerned with public education will be of great interest and value to us.

Answering the question, "What changes do we need to make in our public school programs of agricultural education to make them more acceptable?" he has recently said [16]:

> It seems to me that the courses in agriculture have lacked systematic organization. I have never been convinced that the natural sciences which are to be applied to agriculture have been properly dealt with in most agricultural schools. It seems to me that there has been an effort to come at too early a point in a child's intellectual career to applications. I do not object at all to using applications as illustrations of scientific principles, but it seems to me there ought to be stress on the scientific principle rather than on the practical problems with which most books on agriculture deal.

In conclusion, it may be stated that agricultural educators have in Dr. Judd a good friend and advocate. So good a friend is he that he is entirely willing to be candid with us regarding our faults.

Few are willing to take the role of friendly critic. Few are so competent to do so as Dr. Judd. We should seek and use his counsel. Because he sees education as a whole and from a world viewpoint, he is able to supplement our rather specialized viewpoints and to show us how even our own special interests may best be served by fitting our program into the general pattern of public education.

1. *Proceedings of the National Education Association*, 1916, p. 918.
2. *The Evolution of a Democratic School System*, 1918, pp. 98-99.
3. *Proceedings of the National Education Association*, 1916, p. 921.
4. *School Review*, 22:443. September, 1914.
5. *School and Society*, 8:159. August 10, 1918.
6. *School and Society*, 8:164.
7. *School and Society*, 8:157.
8. *School and Society*, 11:671. June 5, 1920.
9. *School and Society*, 11:673-74.
10. *School and Society*, 11:671.
11. *School and Society*, 11:671.
12. Letter to the writer, March 28, 1933.
13. *School and Society*, 11:665.
14. *School and Society*, 11:666.
15. See the writer's "Vocational Agriculture Discovers the Human Mind" in *Agricultural Education*, June, 1932.
16. Letter to Writer, March 28, 1933.

Vocational Agriculture and Vocational Guidance

C. V. WILLIAMS
Kansas State College

The average farm boy who enrolls in vocational agriculture has a rather indefinite notion of what his life work is to be. His attitude is pretty much influenced by the kind of apprenticeship experience he has had on his own home farm. Too often, parents attempt to influence a boy from their viewpoint which is apt to be narrow and prejudiced.

The first aim of every vocational agriculture teacher should be to see to it that each of his pupils is having a happy experience in the things he is undertaking on his own home farm in connection with his vocational agriculture course. The ninth grade boy, particularly, has a very unsettled viewpoint of what his life work might be. If he chooses to take vocational agriculture at all, it is because he at least has a passing interest in this field, and wishes to further his experiences in agriculture.

In order to interest the boy and to develop in him real guidance thinking, it is necessary that the training given shall be as nearly as possible in keeping with the best improved practices of his own home community. The productive viewpoint must be maintained at all times in natural setting activities in which the vocational pupil is stimulated to work. If the boy finds that he gets joy in managing a poultry flock, and at the same time is able to produce eggs as economically as the best producers of his community, the guidance influence of this effort on his part is very attractive and suggestive.

The attractiveness of the vocational agriculture course in its varied content

(Continued on page 7)

Objectives for Agriculture and Country Life

Iowa State College has adopted a set of 29 objectives to guide it in its educational program. The Associated Press is preparing a series of 30 articles dealing with these objectives, which are being discussed far and wide. There is much help in these objectives for any teacher of agriculture. Upon request, Dr. H. M. Hamlin of Ames, Iowa, supplied the magazine with this article. It is worth reading and keeping.—*Editor.*

A new and modern set of objectives for agriculture and country life has just been adopted by the agricultural faculty of Iowa State College and is available in a free publication entitled *A Statement of Agricultural Objectives*, from the Bulletin Office, Iowa State College, Ames, Iowa.

The first draft of the objectives was worked out by a committee of eight, appointed in May, 1932. The committee held hearings for several months with groups from the local faculty and with many visitors prominent in state and national agricultural affairs. The initial report was reviewed by the staff.

It is decidedly a forward-looking document. Of its 29 objectives only 2 deal directly and exclusively with production. It gives large emphasis to general economic conditions affecting the farmer and to the human and social aspects of country life. Five objectives are concerned with rural and agricultural education. The report is directed to the public as a whole and not merely to farm people, because of the conviction that public policies toward agriculture are of decisive importance in determining the future fate of people on the farm.

Accompanying each objective in the publication is a statement of some of its more important implications and of some of the reasons for its adoption.

The following are the objectives as stated.

I. *To Secure Recognition of the Interdependence of Rural and Urban Interests.*

1. General acceptance, by both rural and urban people, of the fact that whenever agriculture suffers from national and international maladjustments, these maladjustments seriously affect the economic and social welfare not only of farmers but also of industrial employers and workers, business and professional people; that these maladjustments can be rectified only by society as a whole; and that such rectification demands the adoption of a national policy which will give to those of our people engaged in agriculture an equality of opportunity with those engaged in other industries and professions.
2. Recognition of the economic interdependence of farm people and urban wage-earners, and of the necessity of a return to these wage-earners of a just share of the wealth which they produce, as fundamental to their ability at all times to purchase agricultural commodities in such quantities as adequately to meet their needs.

II. *To Secure a Favorable Economic Environment.*

3. Such modification of our monetary, banking, and credit system as will tend to prevent violent fluctuations in the value of the medium of exchange and thus to stabilize the general price level.
4. Such reorganization and coordination as may be necessary to develop a sound banking and credit system adapted to the needs of agriculture.
5. The encouragement of international trade by the modification or elimination of such artificial barriers as either directly or indirectly affect agriculture disadvantageously.
6. Increased efficiency and economy in the transportation of farm commodities.
7. The adoption of a national policy for adjusting agricultural production to prevailing and prospective demand and for handling burdensome agricultural surpluses while this adjustment is in progress.
8. The adoption of national, state, and local policies of land utilization with due regard to the interests of agriculture.
9. The development of a broader base of taxation which takes account of the ability to pay and benefits received, in order that agriculture may be relieved of the unjust burden placed upon it by undue adherence to the general property tax.
10. General availability to rural communities of economical electric power.

III. *To Secure Efficient Management and Production Methods.*

11. The development of adequate national, state, and local soil building and conservation programs.
12. The general adoption of such farm methods as will result in the lowest practicable cost of production; such lowered costs not to be secured at the expense of an equitable labor income and a high standard of living.
13. Improvement in the quality of agricultural products, to enable American agriculture better to compete in domestic and world markets and to fulfill the obligation of the producer to the consumer.

IV. *To Secure Effective Group Action Thru Organization.*

14. General recognition of the benefits possible thru membership and active participation in properly organized and efficiently managed cooperative enterprises, and the general development of a cooperative attitude of mind in farm people.
15. General participation of farm people in agricultural organizations and the better coordination of these agencies for effective influence in local, county, state, and national affairs.

V. *To Secure a Satisfactory Social Environment and Standard of Living.*

16. Attractive, comfortable, convenient, and healthful farm homes and sur-

roundings.

17. The development of a system of leasing farm lands which will encourage permanency of residence.
18. Improved facilities for rural communication and transportation.
19. The development of agencies, both public and private, for disease prevention, medical care, and hospital service to give to rural communities health programs and facilities comparable to those generally available to city residents.
20. The continued development of knowledge in nutrition, clothing, home management and home furnishing to the end that the maximum of health and comfort for the farm family may be secured from the available resources.
21. Greater cooperation between country and town people in community development, providing for health advancement, wholesome recreation, social welfare, educational and economic opportunity, and spiritual growth.
22. The use of a larger portion of the farm income, above that needed for economic security, for improving standards of living in the country rather than for unwarranted expansion of acreage or investment in other enterprises which do not yield returns in the larger satisfactions of life.
23. A high appreciation of the natural advantages of rural life for the development of those pleasures and satisfactions that go to make living most worth while.
24. The development of more effective uses of human time and energy in order to provide the maximum of happiness and well-being from work, recreation, education, and worship.

VI. *To Secure Adequate Rural Educational Opportunities.*

25. The nearest possible approach to equality of educational opportunity, made possible by an increased portion of school funds from federal and state sources, without undue sacrifice of local control.
26. A rural teaching personnel, adequately trained and experienced, which has a genuine sympathy with and an understanding of, country life and its problems.
27. Provision for broad, fundamental curricula in schools serving rural communities, which will bring to country people the richness of the culture of mankind, while including adequate specialized education for farming and country life.
28. Adequate opportunity for both liberal and vocational education for the older farm youth, adult farmers, and farm women.
29. A program of higher education which trains for farming and for rural life and leadership, as well as for other agricultural pursuits.

Members of the committee responsible for the report were H. D. Hughes, chairman, B. S. Pickett, A. G. Black, Blair Converse, Murl McDonald, P. S. Shearer, H. M. Hamlin, and W. H. Stacy.

Cooperation Between Schools and Extension Departments

It seems a certainty that we will hear more about coordinating the extension program and the program of vocational agriculture. The Iowa people have taken the lead in studying this question, completing the first study of the type in this country. They have spent nearly two years in developing their report. At the request of the editor Dr. H. M. Hamlin of Iowa State College, prepared for our readers this digest of the report.

New policies for relationships between schools and extension departments are laid down in the recently published report of a committee which has completed a review of the Iowa extension program in agriculture and home economics. The report is printed as a 232-page book, available from the College Bookstore, Iowa State College, Ames, Iowa.

One chapter of 20 pages deals exclusively with school relationships. The recommendations at the close of this chapter give a good clue to the general spirit of the report:

1. Iowa State College in general and the Extension Service in particular should seek to establish a closer relationship with the public schools of the state.
2. All educational agencies working with rural people should recognize the supreme need for developing cooperation and good will among them. They should consequently coordinate fully their own efforts. Means of coordination include the following:
   a. Common objectives and programs.
   b. State, district, and county councils of workers in agricultural and home economics education.
   c. Joint training of teachers and extension workers.
   d. Use of extension specialists to give assistance with subject-matter to public school teachers.
   e. Use of 4-H Clubs to supplement school program.
   f. Use of schools for extension meetings.
   g. Mutual promotion of each other's program.
   h. Joint development of an educational program for older farm youth.
   i. Cooperation in planning and conducting junior events at fairs.
   j. Participation of teachers in county program-planning meetings.
3. Every effort should be made to avoid even the appearance of duplication of the efforts of the various agencies for agricultural and home economics education. It is not sufficient merely to prevent two agencies from reaching the same person with the same type of work; in general, the various agencies should work with entirely different people.

Certain excerpts from the chapter on school relationships illustrate further the attitude taken by the committee. Speaking of relationships between the workers under the Smith-Hughes and Smith-Lever Acts, the report says:

> It is clear that the two acts were intended to be supplementary. One man was the senior author of both. Both were supported by about the same people. They were passed by sessions of Congress having approximately the same personnel. They were both signed by the same president.
>
> However, the machinery set up for integrating the two federally aided programs was entirely too limited and ineffective. At the federal level, the Secretary of Agriculture is ex-officio one of the seven members of the Federal Board for Vocational Education. This board meets only monthly and is housed remotely from the Department of Agriculture, so that relationships between the two organizations are not close. In the state there is still less connection. The vocational program is administered from the state capitol, the extension program from the State College. No provisions whatever have been made for bringing representatives of the two groups together systematically. It happens that very friendly relations exist; they exist, however, because of a happy congeniality of personalities and not because the administrative set-up has anything about it which would induce such a relationship.

The report recommends that extension assistance be made more generally and easily available to schools and teachers:

> Probably there is nothing extension specialists might do which would return so great a reward for the effort expended as to organize the teachers of agriculture and home-making in the state to receive their assistance in planning their work, in securing teaching materials, in improving their knowledge of subject-matter, and in dealing with particular, specialized community problems with which they are not now able to deal intelligently . . . It is clear, of course, that such a service would have to be organized with the cooperation of the State Department of Public Instruction and the State Board for Vocational Education and that it would have to be confined largely to assistance with subject-matter, rather than with methods of administration and teaching.

A state council of workers in agricultural education, recommended by the committee, is to consist of the following persons:

1. Dean of Agriculture
2. Director of Experiment Station
3. Director of Extension
4. State Secretary of Agriculture
5. State County Agent Leader
6. State Leader of Boys' Club Work
7. Head, Department of Vocational Education
8. Professor in Charge of Agricultural Education
9. State Supervisor of Agricultural Education
10. Representative, State Department of Public Instruction
11. Professor in Charge of Rural Education, Iowa State Teachers College

The organization is not to be executive in nature but is to meet for cooperative

planning, leaving the execution of the plans to the individual organizations represented.

The principle is set up that extension is intended to supplement and not in any way to supplant the work of the public schools. This is stated to apply in the adult field as well as in work with juniors. Much emphasis is placed upon the idea that extension is a part of public education and should be closely correlated with other publicly supported educational programs.

The report recommends that boys in high school classes in vocational agriculture be encouraged to affiliate with the Future Farmers of America, rather than with the 4-H Clubs. Conversely, it is recommended that teachers of vocational agriculture and Future Farmer chapters lend their support in extending the benefits of club work to the persons for whom it is particularly intended.

While the report was worked out with Iowa conditions particularly in mind, it has much wider applications, and it is intended for circulation thruout the United States.

The general committee in charge of the study, appointed by President R. M. Hughes of Iowa State College, consisted of Dr. J. B. Davidson, Head of the Department of Agricultural Engineering, Chairman; Dr. H. M. Hamlin of the Department of Vocational Education; and Professor P. C. Taff, Assistant Director of Extension. In addition to these men, 21 other members of the faculty of Iowa State College served on sub-committees. Dr. W. H. Lancelot, Head of the Department of Vocational Education, was chairman of the sub-committee on school relationships.

Vocational Agriculture and Vocational Guidance

(Continued from page 5)

is the most compelling influence to which the boy will respond. Any attempt of the teacher to give the boy guidance suggestions as a result of good quality of work in a particular phase of the course should be cautiously and judiciously undertaken. Left to his own thinking and backed up by successful practice in any phase of agricultural production, the boy is more apt to choose wisely than if his attention is directed from some source outside of himself.

The agriculture teacher who is brimfull of interesting things for enticing his pupils into productive practices in keeping with their own natural setting situation is the most compelling guidance influence which can motivate the boy into or away from farming.

In times such as the present, the vocational agriculture teacher who is cautiously directing his students in the matter of natural setting activities with a minimum of capital cost is to be commended. Often a maximum of productive experience can be had with a natural setting activity on the boy's own home farm at a very low cost.

Teachers of boys in the day vocational classes should constantly keep in mind that one of the biggest objectives which they have to realize, as a result of the boy's vocational course, is to have him make a wise decision in the matter of his choosing to enter into farming or some other vocation.

A New Book You Will Want To Read

Vocational Education in Agriculture in Federally-Aided Secondary Schools. (A study of its instructional and training phases.) G. A. SCHMIDT, PH.D., Colorado Agricultural College.

WHAT is the philosophy underlying federal aid for the teaching of vocational agriculture? What factors characterize efficient training programs? What general educational subjects should be included in the vocational agriculture course? What do state plans specify in regard to teaching vocational agriculture in secondary schools? What types of pupils are enrolled in vocational agriculture? What methods are used in training boys for farming? What general educational subjects do pupils in the agriculture course study? In this volume are assembled vital facts which answer these questions.

This study is national in its scope; gives opinions of outstanding experts; presents points of view of many teachers; and contains data on nearly 3,000 boys in vocational agriculture classes.

Published by Teachers College, Columbia University, New York City. Write to the publishers for a copy, and it will be sent and billed to you at $1.50 postpaid.

Reactions From Summer Program-Planning Conferences

G. F. EKSTROM, State Supervisor, Iowa

THE summer program-planning conferences recently conducted in Iowa seem worth while. Most of the 97 teachers present at the 17 conferences conducted from February 4 to March 11 wondered why similar meetings had not been held in previous years, and expressed the desire that the plan be continued.

While the informal programs made for a wide range in the discussions, certain tendencies were more or less general to all of the groups. First of all, the men were agreed that the present situation has not lessened the need for agricultural education thru the subject-matter emphasis should be changed considerably. They feel that the value of sound rural leadership was never more apparent, and that the teacher's responsibilities and opportunities for performing a genuine service have added to the importance of his task.

Tho the men believe that the project work of the day-school students might with careful planning be made to return some profit at present price levels, they expect to emphasize the educational benefits to be derived from the home practice work and to stress cooperative undertakings wherever possible. Partnership arrangements with parents are quite common, as is the practice of managing a farm enterprise or setting up a program of improved practices for the home farm in addition to carrying the productive project.

Organized activities of a practical nature supplementing the individual follow-up program of day and evening class members are becoming increasingly popular. Examples include: Class cow-testing associations; class potato, corn, orchard, and poultry projects; farm record flocks; swine performance tests; farm record associations; hot beds; spray rings; buying and selling pools; variety test plots; terracing demonstrations, and the like. With due recognition for the work of other agencies and the use of reasonable judgment in practices which are educationally sound and which will help rather than hinder the farm situation, it appears as if such undertakings represent additional services that can properly be projected.

No less important are some of the social and human considerations which the men discussed. Garden club and other relief activities, picnics and camping trips which do not represent a direct cash outlay, plans for upholding and improving living standards, all have their appeal. Ordinarily, the instructors prefer to encourage direct participation on the part of the F. F. A. chapters in such types of work.

The supervisors and teacher trainers who acted as discussion leaders for the conferences urged that (1) the teachers organize a definite program for the summer months, (2) that they make regular reports to the local school officials relative to the progress of their work, and (3) that they keep school patrons and other interested people informed concerning the programs for which their departments are responsible. The conference leaders expect to follow up the meetings with a summer visitation program and to take advantage of suggestions growing out of the conferences in developing certain course-of-study materials which will be helpful in planning an improved supervised practice program in another year.

News Items

Professor Parkinson of Pennsylvania, has been appointed chairman of a committee, named by Superintendent of Public Instruction James N. Rule, to study the needs of rural life.

Professor and Mrs. Broyles of Pennsylvania, recently went to Park River, North Dakota, where they attended the 20th anniversary of the founding of the Walsh County Agricultural Training School organized by Professor Broyles. It will be recalled that the F. F. A. chapter of that school was named for Professor Broyles in recognition of his services to that community.

Dr. C. R. Wiseman, professor of agricultural education at State College, Brookings, South Dakota, and one of the two research editors for this magazine, has been appointed head of the education department and director of the summer school at the same institution effective at once. Dr. Wiseman went to State College in 1918 as assistant professor of agricultural education.

"Preparation for vocational competency should rank as one of the principal aims of secondary education.

We all believe in Vocational Education, but not a few of us of academic tradition still gag at realistic "shirt sleeves" grimy Vocational Education. Generous public support of all forms of vocational education is one of the most democratic of the ideals and aims of our age."—David Snedden.

Supervised Practice

Farm Skills Acquired in Agriculture Classes

"TO what extent is practical work being taught in vocational schools and departments? A determination of the number of skills taught under the supervision of the teacher of agriculture and the number of new skills performed during the time the pupil pursues an agriculture course is the dual objective of this study. It was conducted by T. W. Crittenden, graduate student, Pennsylvania State College, and presented as a thesis in May 1932.

The ten farm enterprises common to curricula in vocational agriculture in Pennsylvania were chosen as a basis for the study. Lists of manual skills peculiar to these enterprises were constructed with much care, and applied in 18 schools in Pennsylvania.

Some idea of the preparation of the teacher to teach certain skills may be had from Table I, showing the ten farm enterprises, the maximum number of skills involved, and the average number performed by the 22 teachers. In Table II is found a partial answer to "How many skills were acquired thru instruction in one year's time?" The average number per enterprise was 2½.

The author concludes his study with the following summary:

"1. The project as now conducted is very ineffective as a means of teaching boys new skills.

"2. The teacher best prepared in farm practice teaches *with success* the largest number of skills.

"3. Class projects aid greatly in helping the pupils acquire new skills.

"Among the possible benefits which teachers and pupils may receive thru the use of the skill-checking sheets developed by this study are:

"1. Help to make classroom teaching more interesting and functional.

"2. Help to make the project program stronger thru more supplementary projects and serve both as a check and as a means of scoring the teacher's program of instruction.

"3. Help the teacher to set up specific objectives for field trips and laboratory.

"4. Help the boys to develop more efficiency in the skills of farming."

Editor's Note: At first glance, the picture of accomplishment in the development of skills is disappointing. On further thot it is more encouraging. Any student would study and have a supervised practice program containing two to perhaps six enterprises, and therefore the 2½ *new* skills must be multiplied by that number. In the second place, many students have already acquired many of the more common and less difficult skills. In the third place, some of the skills would not be needed by the average pupil. And fourth, the student has from two to four years to accumulate skills in any one enterprise.—E. C. M.

TABLE I.—PERCENTAGE OF SKILLS PERFORMED BY TEACHERS

Enterprise Taught	Maximum Number of Skills Involved	Average Number Performed by 22 Teachers	Per Cent of Maximum Performed by the Teachers
Dairying	32	24.4	76
Field crops	29	25	86
Poultry	31	23.8	77
Vegetable gardening	28	24.3	87
Fruit growing	23	17.6	77
Potatoes	27	18.8	73
Beef cattle	24	11.6	48
Hogs	21	14.4	69
Horses	23	18	78
Sheep	21	11.7	56

TABLE II.—SKILLS ACQUIRED DURING ONE YEAR BY PUPILS WITH THE AID OF THE TEACHER

Enterprise Taught	Number of Schools	Number of Pupils	Skills Acquired from Sept. 1931 to June 1932	New Skills Acquired Per Pupil
Dairying	7	87	178	2.04
Field crops	5	72	183	2.54
Poultry	9	127	659	6.19
Vegetable gardening	8	131	360	2.74
Fruit growing	3	42	133	3.16
Potatoes	3	39	91	2.33
Beef cattle	4	49	22	.44
Hogs	4	49	61	1.24
Horses	4	49	28	.57
Sheep	4	49	74	1.51
Totals	50	294	1,789	2.57

A significant contribution of this study is the author's revision of the several lists of skills used in the study, with a view to their application by teachers of agriculture in their regular instructional work. Obviously, all of these lists cannot be reproduced here, but part of the list of "Skills in Raising Poultry" is presented.

SKILLS IN POULTRY RAISING

School.....Pupil.....Teacher.....

Before School Starts — During Year's Work

NOTE: C—by class; P—by project. CHECKS: Fall—red; Spring—blue.

Skills not performed	Skills performed	Ability to:	Performed skill, aid of teacher: C	Performed skill, aid of teacher: P	Performed skill without teacher's aid
		1. Prepare a pen of poultry for exhibit (washing, drying, polishing)			
		2. Cull a flock of chickens			
		3. Place a pen of poultry			
		4. Select eggs for exhibit			
		5. Candle eggs			
		6. Grade and pack eggs for market			
		7. Trapnest laying hens			

		8. Select eggs for hatching			
		9. Operate an incubator			
		10. Prepare for and brood chicks			
		11. Mix a grain ration, using home grains if possible			
		12. Stick and dry-pick chickens			
		13. Caponize			
		14. Treat a chicken for lice			
		15. Treat a chicken for scaly legs			
		16. Treat a chicken for canker			
		17. Treat a chicken for bumble foot			
		18. Treat a chicken for sour crop			
		19. Treat a chicken for roup			
		20. Treat a chicken for worms			
		21. Prevent or treat a chicken for cannibalism			
		22. Disinfect and whitewash a coop			
		23. Keep records of receipts and expenses			
		24.			

Growth of Interest in Home Beautification

J. W. STONE
Teacher of Vocational Agriculture
Columbiana, Alabama

SIX years ago the vocational agriculture and home economics departments of the Shelby County High School started their first home beautification project at the home of Mr. John Cates. This was really a class project to be used as a demonstration to the students. The yard was a mass of ditches, roads, and mounds of red clay. First, the drives were definitely located on the plan. The ditches were filled as the mounds were graded down. After the grounds were leveled, the walks were laid out and rich soil hauled in to form a suitable place for grass to be planted later. Bulbs and annual flowers were planted as borders and given special beds along the side of the yard. Mrs. Cates had some nice plants, and they were pruned and divided and given a place along the base of the house. In placing these plants, we had in mind their habits of growth, size of leaves, and height of growth. Keeping these things in mind while placing the plants, we could get the desired effect for the building, letting the taller plants grow in the tall spaces and the lower-growing plants grow near the border of the planting and under the windows. Mrs. Cates has continued work on her place from year to year by adding new plants and more grass and fertilizer. She now has a very attractive home.

The students and the community immediately grasped the idea, and since the first project we have helped from 5 to 32 families a year with their home beautification program. This year we have helped 32 families, 5 schools, 3 churches, and a masonic hall.

Since the work began, we added the additional feature of letting vocational boys grow most of the plants in the school laboratory plot. In the four years we have given away more than 650 year-old pieces of shrubbery grown from cuttings taken from the shrubs around the school building. This amount of shrubbery, if bought, would have cost the community $162.50. We plan to continue this work and hope we will have some plants to give all families interested.

School Orchard Provides Good Project for Two Town Boys

G. T. SARGENT,
Auburn, Alabama

TWO senior boys of the Shelby County High School, have received some valuable training in caring for the school orchard and nursery area as a project.

This orchard was started four years ago by the horticulture class as a demonstration orchard for the school and community. Plans were made to continue over a period of four years and to include those fruits recommended by the Experiment Station for this section of the state for a home orchard.

These boys made their project plan last fall, listing those jobs to be done in the orchard thruout the year. Last fall the peach trees were wormed to prevent winter worm injury. Then the orchard was pruned and sprayed with oil emulsion to control scale. The planting plan was completed this year by adding 6 pears, 4 peaches, 5 plums, 6 apples, and 12 grapes. Last fall the entire orchard was sown to austrian peas to control erosion and provide nitrogen for the trees. Spraying was continued thru the spring and summer every two weeks to control rot and worms in the fruit. The older peach trees are loaded with fruit and will have to be thinned to prevent breaking and to increase the size of the fruit. All the fruit will be weighed and sold for home use or on the local market, to pay the expenses of caring for the orchard.

The boys have received training in worming, spraying, pruning, soil building, setting trees, grafting, making cuttings, and cultivation. We expect to continue this orchard work from year to year as a horticulture class project, thru individual boys in other years.

Cooperation in Home Economics and Agriculture

IT IS necessary to buy vegetables every fall to use for the canning lessons in foods. Sometimes products are not available, only poor quality may be had, and prices are often prohibitive. To abolish these difficulties and to make a convenient source available, so that the foods teacher would know just where she was to secure the vegetables needed, the agriculture teacher hit upon this plan: Some of his boys were looking about for project material. They wanted to do something they would enjoy, make a profit on, if possible, and that would be instructive. So he suggested to one boy that he might secure a list of vegetables from the foods class, with quantity of each needed, and then arrange this into a summer project. This was done: He secured a list of about fifteen vegetables with quantities the foods class would need, and raised this garden. He was quite successful, and products were desirable from standpoint of quality, cost, and appearance when brought to the home economics class. The foods class profited by the project, for no one wasted time trying to find where fresh beans could be secured—they knew that the agriculture boy had them. Current prices were paid, the product was delivered—clean and orderly in arrangement—to the door of the kitchen. The girls were interested in the idea because a boy of their own age was doing a piece of work whose results were easily recognizable and because its scope was comparable to their own project efforts.—Fan-Mill.

Selling Vocational Agriculture

O. T. TURNER, Winner, South Dakota

AS the project is the basis of our vocational teaching, it should by all means be the principal method by which the agricultural program is put over in the community. No matter how small or how large a community, all the surrounding farms are a laboratory all may use to the same advantage. No one is cramped by lack of room, the one handicap being lack of rainfall in some sections or depleted soil in others. These projects, I think will never be the means of selling the work until they are properly brought before the public eye. This may be done in a number of ways, first by publicity in the newspapers, telling how the projects are coming along, and explaining in some detail how two or more boys are competing in sheep raising, say, or grain growing. People will then talk about the farm practice and keep up the public interest.

(Continued on page 16)

Methods

The Problem Procedure in Teaching Agriculture

The Formulation and Arrangement of the Problems

J. A. STARRAK, Iowa State College

IN THE preceding article of this series a technique for the formulation of the objectives of a course was suggested. There exists considerable difference of opinion as to what constitutes the next step in the organization of a subject for teaching purposes by the problem method. There are those who hold that the selection of the knowledge to be taught is that next step. There are others who believe that the problems may be based directly upon the objectives to be realized, and that, in the development of the problems in the classroom, the essential fact material will be brought in as it is needed, when it is needed and just what is needed for the achievement of the desired objectives. It may well be that the advocates of both procedures are right and that the correct procedure to be followed in any specific case depends upon the subject taught. In the pure sciences, because of the nature of the objectives sought, it may be necessary to determine and isolate the important principles, laws, and other important facts of general application, and to base the problems upon these items of knowledge. But it seems possible in the case of agriculture to base the problems directly upon the objectives to be realized. This would make it unnecessary to isolate the fact material involved. In any case this step will be omitted in our treatment at this time.

Perhaps it should be observed at this time that there is no one best problem or set of problems, by which to teach any desired objectives. The peculiar needs, experiences and resources of the community must be written into the statement of the problematic situations employed. Therefore a set of problems which might be ideal for one school might require considerable modification to render them suitable for another. The problems outlined below are designed to suit conditions in the mid-west states. To serve as an illustration of the form and arrangement of problems, we shall select from among the list of objectives submitted in the preceding article the one which follows: "The ability to plan adequate housing for hogs at the lowest possible cost." The problematic situations which may be employed to develop this ability are suggested in the following list.

I. In checking upon the observations we have made of the methods employed by successful hog raisers we have noted that they seem to differ considerably as to the emphasis they place upon the housing of their hogs. Among the various major factors involved in profitable hog production where would you rank the provision of proper housing? Defend your decision with sound reasons.

> This is the second in a series of four articles dealing with the problem procedure in teaching agriculture, written by Dr. Starrak. The first article, "Determining the Objectives to be Achieved," appeared in the June issue of the magazine. In the August issue will appear "Presenting the Problem to the Class for Study."—*Editor.*

II. In our field trips this fall we found some farmers using a large community house for farrowing while others used small movable houses. If you had a herd of ten brood sows to care for and could choose the type of housing, would you use a large permanent house or small movable hog-houses and why?

III. Here are two plans of individual hog houses which have been sent out by the Extension Department of .....College. Choose the one you consider the better of the two, stating why you decided as you did.

IV. I have here three plans all supposed to be good but of different types of houses. One is a single pen house, costing $....; one is a three-pen house, costing $....; while the third is a five-pen house, costing $..... Which of these types would you select for a farmer in this community who has fifteen sows to farrow in March? He is a renter and is without adequate housing for his hogs unless they are farrowed in May or June.

V. I have here a plan, with specifications, for a hog house manufactured by the.....Manufacturing Company which sells for $..... If such a house were built by a farmer, making alterations to strengthen the house and other changes (pointed out), the cost of materials and labor would be about $..... If you were in need of such a hog house (and were capable of building it) would you buy it readymade or build it yourself? Why?

VI. I have here advertising from several companies which make individual hog houses and other types of movable hog houses for sale. Select the one which you believe to be the best for the money for the good hog raiser, stating your reasons fully.

VII. Mr.....has moved upon a 160-acre farm, which he has purchased, and intends to breed ten to fifteen sows annually. However, there is only an old hog house which will hold only four sows. The rest of the buildings on his farm are....., ..., ..., ..., located as follows: (Show in sketch on board or make trip to actual farm.) What program of housing should Mr.....follow?

VIII. This problem should be an individual one in which each boy who is raising hogs of his own should be asked to plan for the housing of his hogs. In cases where boys decide to build their own houses, the problem may be brought into the shop class and be disposed of there.

These problems and their arrangement should be in harmony with our standards for a good problem and with our recommendations concerning their proper sequence. These were submitted in the first article of the series. A critical inspection of the individual problems reveals that they meet these standards rather well. The problems are true to life, being identical in nature with those problems which adult hog raisers encounter; they are clearly and definitely stated or described; they are quite interesting and challenging either in themselves or because of their very close relation to interesting experiences and problems which farm boys are certain to have encountered; and they require thinking of a high order, i. e., reasoning, judgment and creative thinking.

Their arrangement also follows the recommended order. The first problem might be termed an introductory problem and may be omitted, if desired, as it is not directly involved in developing the proposed ability. Its main function is to develop the interests of the students in the housing problem by leading them to a fresh appreciation of its importance in the economy of hog raising.

The second problem is the first inductive problem of the series. It is stated in the form of a judgment problem but its immediate purpose is to bring to light and crystallize into definite statements significant advantages and disadvantages of movable and permanent hog houses. It is not essential that a definite solution of the problem be finally agreed upon. When the significant facts concerning the two types of houses have been brought out, and clearly seen by every student, the problem will have performed its function, and may be dropped after the students have formulated, in a systematic manner, the important considerations involved. Giving

judgment problem makes it more interesting to the average student.

Problem Number 3 is another inductive problem, designed to lead the students into a more detailed study of certain important principles of hog house design, with regard to size, shape, lighting, ventilation, materials of construction, floors, etc. This problem is also stated as a judgment problem but since its purpose is to bring into focus the principles underlying hog house design and construction it is really an inductive problem.

A sufficient number of copies of the plans should be available to provide at least one plan for every two boys in the class. If the instructor wishes he may himself prepare plans differing in the respects in which they should differ in order to bring out clearly the essential principles to be taught.

The fourth problem is a typical judgment problem designed to provide practice in applying the principles taught by the two preceding problems. This problem could be made more difficult, if desired, by requiring the students to rank the three houses in order of their merit for this particular farmer. The instructor should secure copies of the plans for the three houses and probably have the costs estimated in the farm shop class rather than in the class on hog production. Wherever this is done, as long as it is done by the students, is a detail.

Problem Number 5 is another judgment problem, emphasizing the matter of construction. If an actual house, which is a good illustration of the type to be studied, is readily accessible it should be used instead of the plans alone.

Problem Number 6 is another judgment problem, designed to provide further application of principles to specific examples. If conditions permit, the class should study the houses at first hand, altho this would not be very practicable unless it were possible to attend some fair where hog houses were being exhibited.

Problem Number 7 involves planning, in addition to judgment, and may be called a creative problem. The whole class will work on this problem, as on all those preceding, in order that it may be used as a basis for class discussion. The students should be lead to include in their plans a consideration of (a) the type of houses to be used, (b) the number of houses required, (c) the location of the house or houses, and (d) the estimated cost of the house or houses.

Problem Number 8, in which each boy is asked to plan for the housing of his own hogs should of course be individual with each boy. This problem will not be utilized for class discussion purposes unless the boys decide to build houses, in which case it becomes a shop project and should be taught as such.

It is believed that the foregoing problems, if properly taught, will develop the desired ability in providing housing for hogs, and that they serve quite well to illustrate that part of the technique of problem teaching which concerns itself with the formulation and arrangement of the problematic situations to be employed.

In a subsequent article it is proposed to take one of these problems and to demonstrate in writing the manner in which it should be presented to a class for study.

Montana Adopts New Objectives in Farm Organization Course

R. H. PALMER, Teacher Trainer, Montana State College

DURING the summer conference of vocational agriculture teachers of Montana in June, 1932, a new set of objectives in farm organization courses was adopted. The new objectives centered around the organization of the home farm with making a living the primary aim, and with cash income as a secondary aim. The course was taught in a number of Montana schools this past year, with some interesting results.

In the past, advanced courses for vocational students had included the customary studies in farm organization, in which the student was taught to keep and interpret records, evaluate equipment, and to coordinate the enterprises on a given farm.

But depression conditions had intensified the need for "live-at-home" abilities and aptitudes; a need which existed in Montana even prior to depression and drouth which visited this state in 1929. The state had many farms built up under frontier conditions upon which living conditions needed improvement. Montana wheat or livestock farmers have not been noted for their attention to diversified farming, even in many of the fertile irrigated valleys. Fruits and vegetables are produced with difficulty in many parts of the state, and livestock products are not easily produced for family sustenance in some regions.

It was evident that in order for farmers to hold out until better prices were paid for produce, or until prices of farmers' supplies had declined, some intensive training in simple "live-at-home" abilities and aptitudes was needed. With this idea in mind, the vocational instructors drafted a plan of objectives for a new course, entitled "making a living on the farm." The general objectives for the course are:

1. To develop suitable interests and ideals in a farm home which will return the utmost in comfortable living, satisfaction in life, and financial security.
2. Ability to plan the organization and management of a farm which will be most nearly self-sufficing.
3. Ability to improve and maintain the farm equipment and the farm home for a maximum of service with a minimum of cash outlay.
4. Ability to produce the family's food supply economically.
5. Ability to utilize the products of the farm for family use.

The agriculture instructors collaborated in setting up the objectives and units of the course, working out teaching procedures and materials, suggesting references, and setting up desirable types of supervised home practices. Subject matter specialists from the State College were called upon for guidance in determining proper principles to teach. Each instructor expected to revise the units to meet his community's special problems.

The course itself was designed as a combination of judgment and manipulative skills which would produce a farmer, trained not only in the abilities in farm organization and management but also in those homely virtues concerned with the family food supply, the care and repair of the house, buildings, and equipment. It contemplated teaching actual skills in farm butchering, preserving meats, gardening, repairing buildings, and making improvement in the layout and facilities of the farm, to insure a comfortable living *first*.

The course was designed with the idea of securing a maximum of improved home practices. Two criteria were set up as suitable measurements of the effectiveness:

1. How many students have actually done, under supervision on school time, the jobs set up to be taught?
2. How many jobs have been done on home farms of students upon completion of the course?

With the aim of securing the greatest number of home practices possible, a list of supervised home practices was made out, an abridged list of them being given below:

Suggested Supervised Practices for Home-Living Course

A. Farm Organization.
   1. Select, secure, and manage new livestock enterprises needed for family food supply.
   2. Select new crop enterprises needed for family food or for cash income.
   3. Lay out new irrigation ditches or new irrigation systems.
   4. Construct dikes and terraces for holding flood waters and snow.
   5. Remodel existing farm buildings.
   6. Set out trees for windbreak, for shade, shelter, and beautification of the farmstead.
   7. Make out a labor budget for the home farm.
   8. Make out a financial budget for home farm.
   9. Select and keep a suitable system of records for the home farm.
   10. Plan for feed reserves.

B. Farm Equipment and Machinery.
   1. Store the farm machinery properly during the winter.
   2. Remodel the farm mechanics shop.
   3. Repair fences, gates, feeders; build cattle passes, stiles.

C. Garden and Orchard.
   1. Prepare a suitable garden site; put up windbreak to hold snow; level the ground, fertilize, and prepare seedbed.
   2. Build a hot-bed; grow early vegetables, plants to transplant later.
   3. Plant and grow the family garden.
   4. Build a vegetable storage pit; harvest and store vegetables for winter use.

D. Meat and Livestock Products.
   1. Prepare and butcher pork, mutton, beef, poultry.
   2. Preserve surplus eggs.
   3. Provide or remodel equipment for the dairy.

(Continued on page 16)

Farm Mechanics

Observations, Objectives, and Recommendations On Farm Machinery Repair Activities

FRANK J. ZINK, Department of Agricultural Engineering, Kansas State College

DURING the last week of March 1933, it was my privilege to visit the farm mechanics departments in 10 schools having vocational agriculture. A varying degree of farm machinery repair work is done in these high school departments. Machines observed were as follows: Two old mowing machines to be assembled into a good one; numerous gasoline engines, 1 to 3 per school; a few cars and trucks; a combination grain-cleaning and elevating machine of local development had been repaired in one shop; three wagon repair jobs were on the floor; at two schools plowshare work had been done. The wood parts were being replaced in one manure spreader. Two hay loaders, slightly wrecked in a wind storm, were on hand for revamping. Other machines at the shops were a lister single-bottom plow, sulky moldboard plow, one cultivator, and a grain binder. In addition to this, several departments had a feed grinder as a part of their equipment for handling grinding in feeding projects.

Objectives of a Farm Machinery Repair Program

A major objective would appear to be the placing into use some of the more elementary skills. Each skill taught could be an integral part of a major job.

The program should lead to the development of the boy as a farm operator.

Initiative should be developed, for farm machinery repair calls for organization and judgment in selection and skillful use of materials.

It should develop an appreciation for the adjustment and settings of farm machines.

It should develop the judgment of values of farm machines and quality of design and manufacture.

The proper care of machinery should be developed.

The fact that there is profit in the proper repair of machinery, thru longer life and lessened power input, needs to be emphasized.

Timeliness and promptness in doing repair jobs should be considered.

Along with the initiative would go a certain development of creative ability.

The proper technique in ordering repair parts needs to be taught.

Farm machinery is a means to the end of easier production and lower cost of production, hence management of the equipment and economics of usage are important features which may be partially taught in the program.

Recommendations

A review of the elementary jobs in shop work would be of some advantage to determine if such work had a definite place in the advanced program and in later application. New jobs might be started which would fit.

Woodworking skills would find an application outlet in replacing wood parts of any farm implement.

Forging jobs might well be taught as the repair of a machine progressed. Many forging jobs taught are of doubtful value.

It would appear that the leadership in the repair of a machine should rest largely with the teacher. The teacher should know proper procedure and keep a close check of work done, so that the machine would operate properly when completed.

Inspection for repair should be a preliminary field project job.

The inspection should take place preferably at the farm. The status of the machine should be determined, whether available for repair, current, obsolete, or beyond economic repair. By so doing, movement of the machine could be avoided as well as any unnecessary work. Also, the machine might be listed as one available for repair as schedules and time permit.

Machines needing minor repair should better be a part of home practice work. Handling machines needing minor items thru the shop would probably be regarded as useless by the boys, and would result in the parent considering the work impractical. The reputation of the instructor should be particularly enhanced by doing a difficult job on a machine, one which will withstand the critical eye of the owner.

It would appear best to work by preference on machines which are on the boys' own farms.

Plowshare work is difficult, and such work will be put up in comparison with the work of blacksmiths with years of experience. Will such work stand this test? On the other hand, overhauling of a machine is not a frequent blacksmith job, hence is less easily compared with professional work.

The availability and use of a school trailer in obtaining machinery for repair is desirable for hauling the machines. In cases where the school reputation is good, farmers will doubtlessly be anxious for work to be done and will handle the transportation themselves.

In schools where machinery repair work has not been done, the purchase of machines for repair may be resorted to. Care should be taken to purchase machines which can later be sold for a profit, if possible. Purchasing machinery for repair would appear to be necessary only in case the teacher cannot obtain the cooperation of some farmer who is willing to have his machine repaired and to pay for the repairs.

Any items of technical information on machinery are available in various sources. Some instruction books will contain adjustments. Such books should be frequently consulted.

The use of commercial booklets and leaflets should not be the only material studied. Such material should supplement recommended texts.

It would appear that the farm machinery repair work should be handled as a class job rather than an individual job. Only by this means could the tension on chains, mesh of gears, alinement of bearings, adjustments, lubrication, and other items be taught in the classroom or with the group at the machine.

It is recognized that the teacher training work should teach the technical phases of farm machinery work. Some repair work should be taught in the teacher training courses, was the idea expressed by all teachers interviewed. Several also expressed approval of laboratory demonstrations in preference to the study laboratory exercises where a machine was not handled.

Work on internal combustion engines seems now to predominate. It would appear that, with the exception of the gas engine, the precision and tools would be lacking in most school shops. Some truck and car work could hardly be classed as legitimate. Most boys are inclined to play with these machines too much. These jobs to a great extent come under the classification of taking the machine apart to see how it is made.

The completion of a farm machinery job by painting should be practiced. To some extent this is psychological value. When the machine comes back painted, the parent knows the machine has been worked on.

It would appear that this activity is valuable to the boy and of some value to the present farmer, and any steps taken to enhance it would be desirable.

Determining the Content of the Farm Shop Course in a Given Community

H. W. BEGGS, Vocational Agriculture Instructor, Accident, Maryland

IN PLANNING the content of the farm shop course in vocational agriculture for any given community, it must be borne in mind that the farmer is called upon to do numerous manipulative jobs and to know much about mechanical things. If he doesn't have a "doing ability" of these many jobs, the appearance of his farm may lead others to think he is an inefficient farmer, because the old adage that "you can tell an efficient and prosperous farmer by the team he drives and the equipment he uses" still has its disciples. Equipment ill-kept and out of repair cannot be effective in farm work, and no farmer can afford to throw away such equipment and buy new. A course

of study, then, in farm shop work should include instruction and practice in many job operations so that the future farmer may develop a "doing ability" in many actual farm jobs.

The content of the farm shop course should be flexible so that it will meet the needs of every boy regardless of what his home conditions may be. This means that the course of study must be obtained from the individuals who are farming in the community and not from some stereotyped source. Too often, the teacher is prone to accept literally some piece of work written by someone who teaches under entirely different conditions; or follow the dictates of some teacher-trainer or supervisor, and by such a procedure have a cut and dried program. This does not mean that a teacher would improve his teaching if he did not accept the advice of those who are in a position to help him. Such advice should be adapted to the community and used as it was intended that it be used.

The writer is working now on a questionnaire to determine, by survey, what the content for a course in farm shop work in this state should be. Of course, the results obtained in this manner will be very general, but they should indicate the type of work preferred in farm shop in Maryland. This survey will include the activities of those boys who have taken at least two years of vocational agriculture. They should be boys who have been out of school two years or more and are now engaged in farming. That the survey include only the boys who are having actual farm experience is very necessary in order that the information gathered may have as practical and as timely an application as possible.

Every farm shop job operation such as: drawing, tool care and sharpening, woodwork, harness work, forging, soldering, etc., can be accounted for through the use of appropriate information sheets. Periodic surveys of this type will lead to a farm shop procedure which will be adjusted constantly to the needs of the boys who are to be served.

Whistling in the Dark

OPEN eyes gradually come to see dimly in the darkness, and the man who watches for the dawn is on his way long before the sleeper is awakened by the sun or the noise of the day. He who starts with the morning star not only out-strips others, but he has less cause for haste in the heat of the day.

Furthermore, the cheerfulness of the man whistling to keep up his courage will prove contagious. The fortitude of the man who tightens his belt and then smiles is heartening to others. Even the public, whose favor is fickle and whose hero worship is short, will remember best what the leader does in "no-man's-land" rather than his splendor on parade.

Whistling in the dark is a characteristic of youth, (youth at any age) youth which has to get somewhere in spite of the dark. Those who expect to be recognized as worth following in the coming day must be remembered as at least trying to find the way out of the gloom. —Massachusetts Staff Letter.

Some Observations on Instruction in Farm Machinery

L.F.HALL, Itinerant Teacher Trainer, Kansas State College

FARM machinery instruction should not be emphasized with first-year students. First-year farm mechanics must be an intensive skill course in care and use of tools. Enough organized group instruction should be given in tool care and use of tools to assure a definite standard of skill by the class as a whole.

Following one year of training in shop skills, students are ready for and should be given a carefully organized advanced course in farm mechanics as second and third-year work. Advanced work should not be neglected, even tho it may be difficult at times to secure jobs or the teacher may be inexperienced. Learning by doing is the type of instruction that should be continued. On the other hand, the difficulty of the jobs should increase, and too much repetition of the same job must be avoided. For example, can a third-year student gain in experience or skill in making a single tree? However, such a job might well be a part of the overhauling of a farm machine.

Failure to do enough farm machinery work is due more to lack of teacher leadership than to weakness of the teacher in mechanical skill. This observation was made by a majority of the teachers questioned on this point. Agriculture teachers are equal to most shop jobs when they are unavoidably faced with them. All the teachers interviewed expressed a desire for further training in farm machinery repair with the hope that this training might take the form of practical demonstrations. None of the teachers seemed to have clearly in mind a sequence of instruction that would be desirable in starting and then advancing a class in farm machinery instruction or even what material should be included in such a course. However, all of them felt that a definite course should be organized.

It would seem that farm machinery instruction could well include principles of physics, at least those most important, insofar as they are involved in machines, selection of machinery, care of machinery (prevention of undue wear), and conditioning and repair of farm machinery.

Much of the repair of farm machinery will be the replacement of wood parts, the straightening of iron parts, replacement and installation of parts, tightening and adjusting of machinery, and occasionally the designing and building of a new part either in the school shop or on order in a local welding or machine shop.

To secure farm machinery jobs, the teacher must be aggressive; he can not simply leave it to the students to bring such jobs if convenient. Those teachers who teach little machinery repair work have not exercised enough initiative in locating jobs and in getting such work transported to the shop.

To get farm machinery work, the quality of workmanhsip in all types of shop work must be good. An owner of a good machine will not trust students to make needed repairs if he observes poor work on simple carpentry or forge jobs.

To get a start in farm machinery repair, a few type machines should be secured, repaired, and demonstrated as being in fine running order. Once the teacher proves that he can so organize his boys as to do a good job of farm machinery repair he will get the work.

Failure to secure machines to repair in farm mechanics classes has been due in many cases to failure to inspect the machine on the farm, to determine what is needed and the cost. Few farmers will send a machine to the school shop with a permit to "Fix it up and I will pay the bill." Occasionally a machine is brought to the shop that needs little repair, possibly merely an annual overhaul. Such work should be done on the farm; inspection of the machine by the teacher would have shown this.

Most farmers make only the necessary repairs to keep a machine in operation, and quite often wait until necessity forces them to replace a worn or broken part. Another advantage for inspecting a machine on the farm is that the necessary replacement parts will be determined, to find out whether the parts can be procured, before the machine is taken to the school shop.

Farm machinery repair jobs should be distributed thru the year. Any one job should not be kept in the shop too long, and the work should come in so as to best utilize the time of students and facilities of the shop.

Teaching Devices in Farm Mechanics Work

S. M. Thorfinnson,
Instructor in Vocational Agriculture,
Granville, North Dakota

IN ADVANCED shop for juniors and seniors my shop class has inspected the electric wiring of the school, making some minor changes for the sake of convenience, but mainly repairing poor splices of connections, tightening loose wires, and checking up on switches and fuse boxes. I have found it possible to teach the fundamentals of home wiring by this method. Estimates are then made on the cost of wiring the buildings on the home farm.

Through the courtesy of local dealers we have assembled some new machinery, and inspected old machinery to see where the machine wears most. This also gives us a chance to study the difference in old and modern schools of lubrication, and the changes in the materials used for bearings, etc. The John Deere book "Care and Repair of Farm Machinery" and the IHC sets of charts of farm machinery are also used in this connection.

In concrete work we use the Portland Cement Company's set of pamphlets on the "Use of Concrete on the Farm." A sidewalk was built alongside the school house this fall, and by using costs of this work as a basis for calculation, the costs of various mixtures for barn floors, mangers, feed alleys, etc., were calculated.

Future Farmers of America

Poolesville, Maryland, Chapter at Work

C. MERRICK WILSON, Adviser

OUR chapter has had the hard luck of having its funds wiped out twice by the closing of banks. In the summer of 1931 we lost $70 in a bank failure, and again in March 1933, we had a second misfortune and lost $45 in another bank closure. For this reason our boys are compelled to use every possible means of making money to run the chapter.

The following methods have been employed successfully:

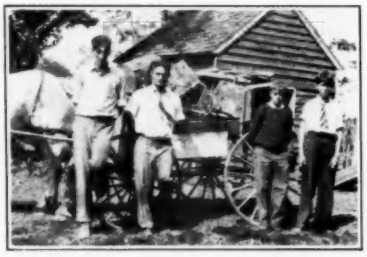
(1) The chapter runs a "Clean Up Wagon" for the community. This plan was started in 1931 when the boys were sponsoring a "clean up" program. The problem arose of getting the trash of the community away. So the F. F. A. members brought in farm wagons and collected the rubbish. Since then, we have continued this "clean up" work about four times each year. We charge 10 cents a sack if the trash is sacked up. If left in a pile to be collected, we charge by the lot or pile. This "clean up" work has been a marked success both from a financial and a community-improvement point of view. The chapter has made from $6 to $12 a day on the project. One of the residents made this statement recently to the adviser: "Poolesville is cleaner now than I have ever seen it in my 50 years as a resident here."

(2) An "old hen" day was suggested by one of the boys in 1932. Accordingly, a day was set for the "old hens" to meet at the Poolesville High School. The boys brought in hens from home and also asked farmers without children in school for hens. Many farmers would say, "There is a hen, she is yours if you catch her." So you can imagine the old hen was soon captured. The hens were fattened for a week or ten days and sold on the market. The profit was $38.65.

(3) Chapter has used the "old chance" to bring in many dollars. In 1931 the boys raffled off a purebred heifer to raise money to help send their American Farmer candidate to Kansas City. The calf made a net profit of $64. This fall the boys raffled off a turkey during the Community Fair and cleared $13.70.

(4) The chapter has as one of its goals each year a community-improvement project. This year the boys decided to put on a drive to get farmers to plant better seed. The members had a threefold purpose: First, to increase profit for farmers by using good seed; second, by using better seed, the products shown next fall will be of a higher quality, thereby improving the Community Fair; third, to increase the sale of the members' certified seed. The method used to interest farmers is the poster-slogan method. The F. F. A. members have compiled good slogans, printed them on cardboard, and placed them in conspicuous places about the community. Such slogans as "Seed Dimes Harvest Crop Dollars," "Have You Good Seed, Mr. Farmer?", "Farmer Wealth in Good Seed" have been used. This undertaking has brought about very definite results with corn, as the members have sold all their seed and the chapter has ordered many lots from other seed corn growers.

(5) The F. F. A. boys sponsor a community fair annually. This is held in the high school gymnasium and is entirely in the hands of the chapter members. The fair has been a success. The products shown in 1932 were a great improvement over those of any previous year. One thing we have noticed is that most of the prizes are taken by Future Farmer members.



Cleanup Wagon of the Poolesville, Maryland Chapter

Future Farmers to Attend World's Fair

A four-wheel trailer has recently been completed by the Bethel Chapter at Athens, Texas, as a part of their plans to attend the World's Fair at Chicago this summer. The trailer was partly paid for by ads of local business firms. The boys are growing three acres of Irish potatoes, seven acres of watermelons, and three acres of cotton as a chapter project to earn additional money for the trip.

You may rest assured that any teacher who cannot inspire his students with a desire to pay the price of a good show for the rights and privileges of being a member of the Future Farmers of America for a whole year, is not worth a fraction of the salary he is receiving.

Members of the Patterson chapter, California, are retaining active participation in Future Farmer work after graduation. A continuation class of nine boys are enrolled, meeting every Tuesday evening for two hours.

Pupil Organization Develops Responsibility

T. E. HEALD, Massachusetts

A MOST significant event at the West Springfield, Massachusetts Agricultural Department occurred on the evening of March 22, 1933. It was announced as Guest Night of the local Future Farmers of America. In attendance at this event were parents of boys in the agricultural department, members of the advisory committee, and other persons interested in the agriculture of that section.

The school desks were all moved to the walls of the room, making a continouous bench for displays. Each of these displays was so arranged as to teach an important lesson which could be grasped quickly by the spectators. Such displays included: egg candling devices including also the defects in eggs which were detected by the candling, germination contests showing the relative values of good and poor seed, Babcock testing of milk, good and poor types of hens with the record of each including the financial value of the products, balanced ration, and fertilizer exhibits.

All of these were designed and arranged by the pupils themselves. They attracted much attention and were studied by the visitors both before and after the brief formal program. A contest in market-egg selection was also a part of the exhibit, and at the close of the program the eggs selected by the boys were judged and ribbons awarded. In the formal program the officers of the pupil organization presided and conducted their routine business. The writer was the guest speaker, and his subject was "Problems for the Agricultural Pupils to Work Out in Meeting Their Part of the Present Financial and Unemployment Situation."

The enthusiasm and efficiency of the boys in carrying out this event demonstrates a real improvement in this department. The organization is their own, and they have assumed a definite responsibility of making the pupil group function not only for themselves but for the community. The visitors of the evening were enthusiastic in the commendation of the exhibits and of the efficiency of the boys in carrying out the events.

The regular instructor, Mr. H. F. Bartlett, kept himself in the background for the most part and permitted the boys to get the values possible in such experience. The F. F. A. is thus made a "holding company" for many of the former activities of the group, providing an opportunity for new ideas and inviting the boys to develop their originality. The enthusiasm of the boys seems to be directly proportional to the responsibility placed on them.—Staff Letter.

When the Speaking Contest is Won

R. C. DIKEMAN,
Teacher of Agriculture, Wilson, New York

It has been a pleasure during the past five years to note the effects of speaking contests. One in particular I have observed critically. Boys, in general, are not overly enthusiastic about participating. It means much work, careful planning, hard practice, and then the contest in the eliminations.

I am mainly concerned here with the eliminations. Boys take an interest in them as participants, but the most singular observation is the wholeheartedness displayed by the parents. One might think this would subside when their boy had played his share in a speaking event. The interest once created in the parents seems to endure from year to year strong enough for them to follow the contest regardless of who is actively taking part. This is a point, I believe, of leadership and a good follower. The recognition of the ability and the high regard is shown those possessing the power of appearing before an audience and delivering a speech.

For the five years these speeches have been given publicly, the parents of the past participants, the boys themselves, and their friends have closely followed the event each year. Their interest seems not to have waned in the least.

There does not seem to be any special liking or choice of topics concerned. It is mainly the ability to talk freely on a well-studied subject that is appreciated by the audience.

If it is a case of once creating a taste for speaking and the desire instilled to hear good speeches, then it seems that a significant point is obtained in having speaking contests. Possibly wider recognition and attention should be allowed such an important phase of our education, and more people be prepared to take a part in order that they may become leaders or good followers in their enjoyments of this form of pleasure.

Vocational Day, University of Maryland

Approximately 200 members, representing 30 local chapters of F. F. A., attended Vocational Day, and many of them took part in the Poultry and Public Speaking Contests, at the University of Maryland on April 29.

Vocational Day at the University is an annual event, planned for by Dr. H. F. Cotterman, Head of the Agricultural Education Department, representing the University of Maryland, and Dr. J. D. Blackwell, State Director of Vocational Education, representing the State Department of Education. Dr. C. S. Richardson, Professor Public Speaking and Extension Education at the University, assisted by L. G. Worthington, Assistant in Agricultural Education at the University, conducted the Public Speaking Contest. Elimination contests had previously been held in each of the eight districts represented by the contestants. The judges were Miss Hester Beall and Dr. W. B. Kemp, of the University of Maryland, and Dr. C. H. Lane, of the Federal Board for Vocational Education.

Twenty-eight different teams, representing 28 local chapters of F. F. A. entered the Poultry Judging Contest. Professor R. H. Waite, Head of the Poultry Department, University of Maryland, conducted this contest.

Marion Nichols, of Princess Anne, President of the Maryland Association of F. F. A., was chairman of the F. F. A. luncheon meeting. Dr. R. A. Pearson, of the University, gave the address of welcome. Dr. H. F. Cotterman, Professor of Agricultural Education at the University, was the principal speaker. Dr. C. H. Lane, National Adviser, gave a detailed announcement relative to the F. F. A. Pilgrimage to Washington, Mt. Vernon, and Monticello. Dr. H. F. Patterson, Dean of the Agricultural College, awarded cash prizes to the winners in the respective contests. Dr. J. D. Blackwell, State Adviser, outlined briefly the plans for the F. F. A. camp to be held at Camp Ritchie August 25-27.

Supplies for F. F. A. Camping Trip 25 Boys for One Week

Food Material Taken Along: Bacon, 3 sides; hams, 2; beans (navy), 1 peck; beans (lima), 1 peck; potatoes, 4 bushels; apples, 2 bushels; cabbage, 10 heads; carrots, ½ bushel; tomatoes, 1 bushel; eggs, 24 dozen; butter, 25 lbs.; roasting ears, 4 dozen; cucumbers, 15 large; rice, 5 lbs.; raisins, 2 lbs.; lard, 3 lbs.; coffee, 5 lbs.; canned goods—cherries, 6 quarts; peaches, 4 quarts; blackberries, 6 quarts; raspberries, 3 quarts; green beans, 6 quarts; tomatoes, 6 quarts; sauerkraut, 6 quarts; vinegar, 1 gallon; salt, 2 boxes; pepper, 1 box; sugar, 25 lbs.; soap chips, 2 boxes.

Other Equipment: Tents, 5; ax; hand-ax; hammer and nails; cooking stand; spade; lanterns, 6; saw; mirror; wash basins, 2 or 3; paring knives, 4; butcher knives, 3; dish pans, 2; large kettles, 8-10 quart, 4; small pans, 4-6 quart, 6; heavy iron skillets, 4; old rags; first aid kit.

Equipment for Each Boy: Dish towel, knife, fork, spoon, cup, plate; bedding—two blankets, pillow; bathing suit, fishing tackle, soap and other toilet articles, needle and thread, etc.

Other Expenses: Gas and oil (850 mile trip), $14.63; groceries—milk, bread, kerosene, etc., other incidentals, $25; boat rent, $2.50; camping fee, 75c; to trucker, $9.

Plans Used: First year, chapter furnished $3, boy $1; second year, boys furnished all, food $2, cash $2.

The above is a list of supplies which we have found to be suitable and sufficent for 25 boys on a week's camping trip. This list is a direct result of our two camping trips into the Ozarks and we feel that last summer we had a rather well-balanced ration. A special cook was included who, assisted by two boys each meal, prepared the meals for his expenses on the trip. This is of course only list, and many foods may be substituted for what we have used, but we feel that the variety used kept the boys from going stale on what is ordinarily used as camp "grub" (beans and bacon). Floyd Wroughton, Adviser, Girard Illinois Chapter.

"The goal of yesterday will be the starting point of tomorrow."—Carlyle.

Feed Cooperative Shows Continuous Expansion

NEWTON ROBERTS,
Member Riverdale Chapter, California

A few years ago the Riverdale chapter of Future Farmers mixed and stored all their feed, which was very little, in a small brooder house, but due to the increase in membership and the need of feed to run the large hog and chicken projects, it was decided that they would have to build a larger feed house.

The Board of Trustees of the high school appropriated $225 for material with which to build a feed house 24 x 42 and 9 feet high.

The building was finished in February, 1932. All the work was done by the Future Farmer members. As soon as the building was completed, a $125 hammer mill was installed, which was run by a 1922 Continental motor, given to the club by a farmer in the community.

In June, 1932, a new Ford truck was purchased for feed-hauling purposes. The chapter now buys all its own grains, grinds them, and mixes them into different feeds. They are putting out so many tons of mash a week that there is a great necessity for a power mixer, which the club is thinking about buying. Some of these feeds are: chick starter, chick grower, laying mash, chicken-fattening ration, hog-growing ration, and hog-fattening ration.

Between March 1, 1930 and October 1, 1930, the Future Farmers used 30 tons of barley, 9 tons of wheat, and 6 tons of other feeds. Between October 1, 1930 and October 1, 1931, they used 26 tons of barley, 5 tons of wheat, 70 tons of milo, and 12 tons of other feeds. Between October 1, 1932 and March 1, 1933, they purchased 67 tons of barley, 10 tons of wheat, 2 tons of milo, and 141 tons of other feeds.

In the past two years there has been a total of $200 distributed among the members for labor. There has been 250 tons of grain ground for different farmers around the community in the last year.

The chapter is now working on an article which will be put into the constitution which says that when the chapter's revolving fund reaches $2,000 the Future Farmers will get a 5 per cent refund on all purchases made thru the club. This refund will be paid in numerical order as the fund revolves about $2000.

Puerto Rico Holds Convention

H. W. SANDERS
Teacher Trainer

PUERTO RICO HOLDS CONVENTION

THE first annual convention of the Future Farmers of Puerto Rico has just been held in San Juan. Of the 45 local chapters, 44 were represented, and 212 boys with 54 advisers were in attendance. The Island is now completely organized, every department of vocational agriculture having a chapter with a total paid up membership of 1,663. The convention came as a climax to the organization program and was unusually effective in creating public interest and good will as well as providing the boys with many valuable new experiences and developing a broader conception of the aims and purposes of the Future Farmers of America.

The convention embraced four impor-

tant activities: (1) A judging contest for crops and livestock, (2) a public speaking contest, (3) a business session of the official chapter delegates, and (4) an exhibition of the products grown on the school farms. These activities, together with a sight-seeing tour and attendance at local theatres, constituted a program that kept the boys busy.

The judging contest was conducted in very much the same manner as those on the Mainland, the principal difference being that all the products judged were produced by the boys themselves. A total of 250 crates of vegetables and 52 animals were exhibited, the former being carefully graded and packed in standard containers. Thus the judging contest and exhibit both stressed these very important phases of the marketing problem and paved the way for future work in the disposal of farm products.

The public speaking contest was one of the most inspiring features of the convention. By means of elimination contests held at various parts of the Island ten boys were selected for the final speeches. When they appeared in the Municipal Theatre in San Juan, the house was crowded. Many who came from curiosity left with a new idea as to vocational agriculture and Future Farmers. Winners in the contest presented their speeches over the radio in a special program which, according to estimates, was heard by 40,000 citizens.

The Insular Chapter conferred honorary Insular Farmer Keys on Dr. José Padin, Commissioner of Education; Harrison C. Givens, Director of Vocational Education; Antonio Texidor, Insular Adviser and Supervisor; and M. Meléndez Munoz, Secretary of the Insular Board for Vocational Education and F. F. A. Treasurer.

Selling Vocational Agriculture

(Continued from page 9)

Whoever stopped you on the street and asked you how the projects were coming? Not many. Then the whole summer's work should, it seems to me, be capped off with a day or two of agriculture days at which time every boy should be required to exhibit something of his own raising. The public should be invited, and there should be at this exhibition plenty of good livestock, as this beats small grains and gardens a dozen ways.

This is something which should be worked for. It has already been done to some extent but not enough. The project allowed to bloom and die unseen and unheard of is no advertisement for any department of agriculture. We had a very good exhibit last season. We found it worth while in more ways than one, as the boys learned a good deal about how to exhibit and sold much seed and livestock.

Chinook, Montana Builds Trailer

THE Chinook Chapter of F. F. A. recently constructed a trailer from a Ford chasis, capable of carrying 25 boys. This trailer is used for field trips and so forth and is a useful piece of equipment in any department. The cost of construction, including the chasis, was $27.—F. Bowen, Instructor.

Montana Adopts New Object in Farm Organization

(Continued from page 11)

E. Home Improvement.
1. Install or improve water system.
2. Install drains and cess-pool.
3. Provide refrigeration system.
4. Repair exterior of house.
5. Remodel and repair interior of house and equipment.
6. Beautify the homestead.
   Build attractive fences, gates; plant lawn, install irrigation system for lawn; plant bushes, shrubs; lay out flower beds; plant trees.

The teaching of these jobs got immediate results. A survey of a number of Montana agriculture departments conducting the course was completed on January 1, shows that a large number of such jobs had already been carried out, and that a number more were planned for the coming year. These jobs of supervised practice are not, in general, replacing the student's home project, but are carried out in addition to the project. Examples of supervised practices from a few departments will illustrate the kind of 'depression' jobs which the agriculture boys are doing as a result of this course.

At Lewistown, Montana, under the instruction of H. D. Hurd, a class of 20 students had done the following jobs at their homes during the first half of the school year 1932-1933.

Butchered veal	1
Butchered hogs	6
Butchered poultry	3
Butchered beef	2
Butchered sheep	1
Butchered deer	1
Cured or preserved meat	6
Installed kitchen conveniences—(wood-boxes, shelves, sinks, etc.)	4
Remodeled farm buildings	2
Repaired or built root cellar for vegetable storage	3
Stored machinery for the winter	2
Repaired machinery on the farm	3
Built or repaired corrals	7
Built or repaired fences	4
Repaired house—roofs, foundations, walls, etc	4

In the Lewistown class, the boys selected one home improvement job to do each week while at home. The class also is conducting demonstrations on shelterbelts, on farm planning and reorganization, and on home gardening.

At Miles City, where Harry Hoffman is the instructor, with 24 students enrolled in this course, an impressive list of jobs had already been done by January 1.

Establish feed reserves for home ranch	8
Stored vegetables from home garden	17
Home poultry flock culling and improved feeding	14
Secured improved breeding stock	4
Obtained improved poultry breeding stock	9
Repaired farm machinery on home farm	14

At Moccasin, where Eugene Egan is the instructor, the 10 students in this class have done butchering jobs on seven farms, totaling 14 head of animals used for home meat supply. In most cases, the class cut up the carcasses and preserved or cured the meat. Another project was to build a flood water irrigation system covering 1½ acres for a garden for next year. Two students built ice wells which may be used in the summer to preserve food. At homes of students, wind generators for charging auto and radio batteries without cost, were installed. Students are starting poultry flocks, dairy herds of small size, or other animal projects which will help maintain the family food supply for the coming year. Garden projects will be carried on by most of the boys during the coming season.

This course is open to the criticism that many of the jobs taught are manipulative skills which do not require a high type of thinking; and that much in the way of judgment skills is being set aside for such homely jobs as storing vegetables or building fences. At the same time, this instruction is meeting a distinct need for such improvements and jobs as will help the farm family meet depression conditions.

The instruction during the second part of the year covered rather thoroly the principles of farm organization and management, in addition to seasonal jobs in producing family sustenance. In this way it is hoped to teach boys how to organize farms to get a maximum of comfortable living from them.

If the farmer of the future must face low prices for what he sells and high prices for what he buys, then the training from this course will help him to maintain his family in a comfortable home with good food, with the least possible cash outlay.

Even if farm prices advance, the farmer of the future will be trained first in the homely virtues of making a good living, and second in making a cash income. Such a farmer will always be an asset to American agriculture.

North Central Association of Instructors in North Dakota Plan Another Summer Tour and Camping Trip for Students

Seven schools in this area are again planning their annual tour and camping trip. The same schools last year went on a week's tour to Spiritwood Lake, a distance of about 160 miles. There were 55 students in the party. With all food furnished and the boys and teachers living in tents, the total cost was only $3. per person. Such trips are both educational and recreational to the students. Some of those on last year's trip had never been outside of the county before. This year we are planning a little longer trip and expect to visit the North Dakota Badlands, a distance of about 300 miles

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I must respect:—
My job if I am going to give it my best.
Myself if I am to make others respect me.
Today for it is the only day I really have.
My children's rights if I want them to respect my authority.
The confidence of my friends if I want to keep them as friends.
The opinions of others if I expect my own to have any influence.
My promises if I want other people to take them seriously.